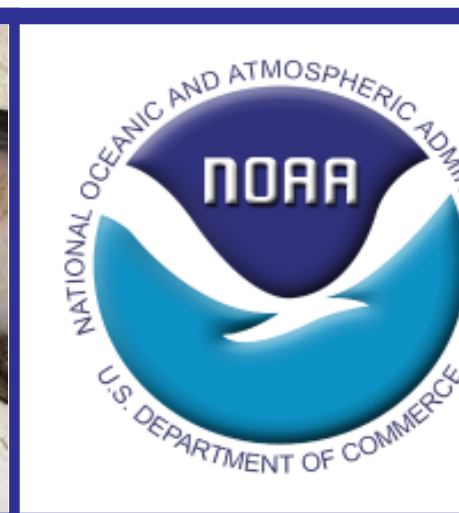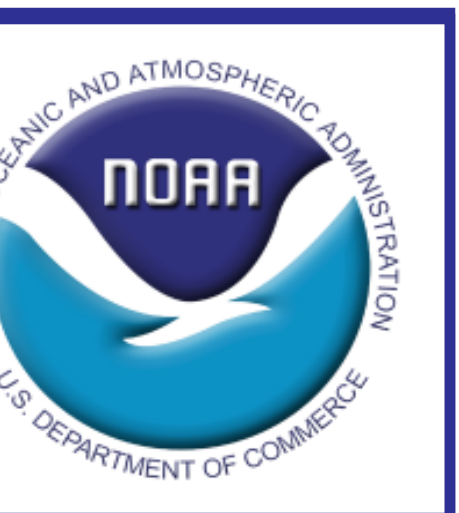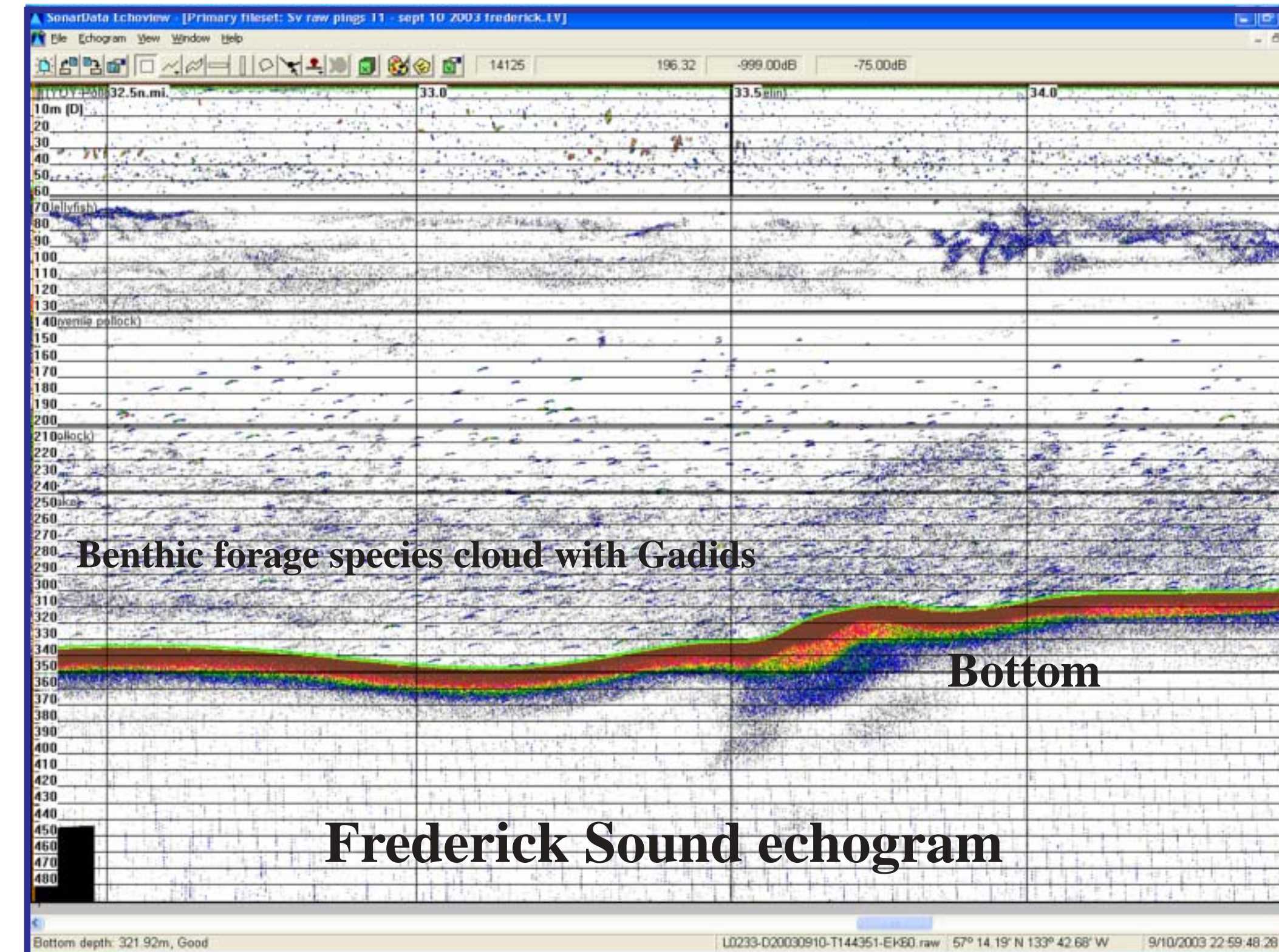# Benthic Forage Species of Southeast Alaska
by David Csepp

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Steller Sea Lion prey studies have been conducted since May 2001 in southeast Alaska. Acoustic surveys are conducted monthly in Lynn Canal and quarterly in Frederick Sound using a 38 kHz split-beam system. Midwater trawl surveys are conducted quarterly using a 150 ft. head rope and small-mesh codend liner. Our surveys found a group of poorly studied yet abundant forage species associated with the bottom at depths greater than 100 meters. These species acoustically appear as a cloudy layer. Myctophids are the dominant species with many other common and rare species.

Benthic forage species cloud with Gadids
Bottom
Frederick Sound echogram

Benjamin Island Haul out
Lynn Canal Study Area
Juneau
Brothers Island Haul out
Frederick Sound Study Area
Alaska
Canada
Southeast Alaska
Southeast Alaska

Benthic Forage Fish List:
northern lampfish = *Stenobrachius leucopsarus*
California headlightfish = *Diaphus theta*
pinpoint lampfish = *Nannobrachium regale*
bigeye lanternfish = *Protomyctophum thompsoni*
northern pearleye = *Benthalbella dentata*
longfin dragonfish = *Tactostoma macropus*
Pacific viperfish = *Chauliodus macouni*
capelin larvae = *Mallotus villosus*
eulachon = *Thaleichthys pacificus*
stout blacksmelt = *Pseudobathylagus milleri*
tadpole sculpin = *Psychrolutes paradoxus*
smooth lumpsucker = *Aptocyclus ventricosus*
pallid eelpout = *Lycodapus mandibularis*
Pacific sandfish = *Trichodon trichodon*
bigmouth manefish = *Caristus macropus*
northern smoothtongue = *Leuroglossus schmidti*
blacktail snailfish = *Careproctus melanurus*
smalldisk snailfish = *Careproctus gilberti*
tadpole snailfish = *Nectoliparis pelagicus*
pygmy snailfish = *Lipariscus nanus*
marbled snailfish = *Liparis dennyi*

Cephalopod and Shrimp List:
Berryteuthis magister
Gonatopsis borealis
Galiteuthis armatus
Octopus *spp.*
Cephalopoda *spp.*
Pacific glass shrimp = *Pasiphea pacifica*
Alaskan pink shrimp = *Pandalus eous*

Forage Species Catch % by Weight

Squid
Lumpsucker
Eulachon
Myctophids

Legend:
- Myctophidae
- Eulachon
- Squid
- Smooth Lumpsucker
- Pacific Glass Shrimp
- Snailfish sp.
- Pacific Sandfish
- Northern Smoothtongue
- Pacific Viperfish
- Capelin Larvae
- Octopus sp.
- Longfin Dragonfish
- Blacksmelt sp.
- Northern Shrimp
- Pallid Eelpout
- Northern Pearleye

Northern Lampfish

Myctophid + Glass shrimp catch

Pallid Eelpout

Northern Pearleye

Northern Smoothtongue

California Headlightfish

Gonatopsis borealis

Pacific Viperfish

Berryteuthis magister

Parasitic copepod
Pacific Glass Shrimp

Typical summer Herring sign
Juvenile Pollock
Herring schools
Juvenile pollock sign
Forage species cloud with juvenile pollock
Bottom
Lynn Canal echogram

Typical benthic catch with myctophids, shrimp, squid and hake

Smooth Lumpsuckers

Longfin Dragonfish

Longfin Dragonfish

Pacific Sandfish

Smalldisk Snailfish
pygmy Snailfish

Pacific Viperfish

Bigmouth Manefish

Octopus